

*Iolana iolas obscuriolas* BETTI, 1977 (Lycaenidae)  
a synonym of *I. iolas iolas* OCHSENHEIMER, 1816

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### Introduction

The first specimens of the nominate subspecies were discovered by Tóbiás KOY in Farkas-völgy in Budapest in 1816. It was OCHSENHEIMER who wrote it down for science, as a new species. The distribution of *Iolana iolas* O. and especially its biology have engaged the attention of a number of Hungarian research-workers. Above all, we must stress the names of the following investigators : ABAFI-AIGNER, FRIVALDSZKY, VIERT, UHRIK-MÉSZÁROS and BALOGH.

*Iolana iolas* has a relatively local distribution in Hungary and is a protected species. At present, only four isolated populations of it are known (Fig. 4).

The type locality (neighbourhood of Budapest), the shore of Balaton, the Mecsek-mountains and the Villányi-mountains are under very strong human pressure. At its locality in the Mecsek mountains, for example where it inhabits the plant-communities Rusco-Orno-Quercetum and Inulo spiraeifoliae-Quercetum pubescentis, the only foodplant of the species, *Colutea arborescens*, is rapidly being destroyed as consequence of improper forest management. *Zygaena punctum* OCHSENHEIMER, *Adscita budensis* SPEYER & SPEYER and *Spialia sertorius* HOFFMANNSEGG have almost completely died out in the afore mentioned localities. We must also expect the extinction of *Iolana iolas* O. in the Mecsek in some decades, since the protection of the species itself, without the protection of the habitat, is not sufficient. The other populations, particularly at Balaton, will have the same fate.

### An analysis of the populations in Hungary

According to comprehensive Hungarian works on Lycaenidae (SZABÓ, 1956 ; GOZMÁNY, 1968), the populations unitedly represent the nominate subspecies. BETTI (1977) has conducted investigations in the Mecsek-

mountains (Southern-Hungary). On the basis of five male specimens, he stated that the population in Mecsek (Pécs) represents an independent subspecies and gave it the name *obscuriolas*. In one of my previous papers (FAZEKAS, 1980) I questioned the status of *Iolana iolas obscuriolas* BETTI in Hungary and suggested that the taxon must be confirmed by further examination. I have now analysed 250 specimens of *iolas* (♂♂ & ♀♀) from recent collections and from collections of the beginning of the century (coll. Museum of Natural Science, Budapest, "Janus Pannonius" Museum Pécs, collection of Imre BALOGH in Budapest).

### **Description of *Iolana iolas iolas* specimens compared to those from Mecsek (Fig. 1)**

- ♂♂ – Forewing length 19-21 mm. Mecsek specimens : similar.
- Upperside violet-blue covered with grey. Mecsek specimens : not brighter than *iolas iolas*, dark blue specimens also occurring.
  - A narrow black terminal band running from costa, just before apex to tornus, sometimes thicker between veins. Mecsek specimens : black border variable, similar to *iolas iolas*.
  - Underside light grey, darker along costa, post-discal spots black, ringed white. Mecsek specimens : colour of underside and shape of post-discal spots as in *iolas iolas*, with similar range of variation.
- ♀♀ – Forewing length 19-22 mm. Mecsek specimens : 19-21 mm.
- Upperside bright violet-blue. A broad blackish-brown band running from base of costa to termen. Mecsek specimens : identical.

Besides the comparative morphological examinations of big series, I examined also the structure of the genitalia and found them identical (Figs. 2 and 3).

### **Conclusion**

*Iolana iolas obscuriolas* BETTI, regarding its morphology and the structure of the genitalia, is identical with *Iolana iolas iolas* OCHSENHEIMER. In spite of the relative geographical isolation, I cannot recognize either phenological or ecological differences, therefore I conclude the following synonymy :

*Iolana iolas iolas* OCHSENHEIMER, 1816 (Schmett. Eur., 4 : 144)

Type locality : Budapest, Farkas-völgy

Syn. : *I. iolas obscuriolas* BETTI, 1977 (Alexanor, X, 2)

Type locality : Southern Hungary, Mecsek-mountain, Pécs, 200 m *syn. nov.*

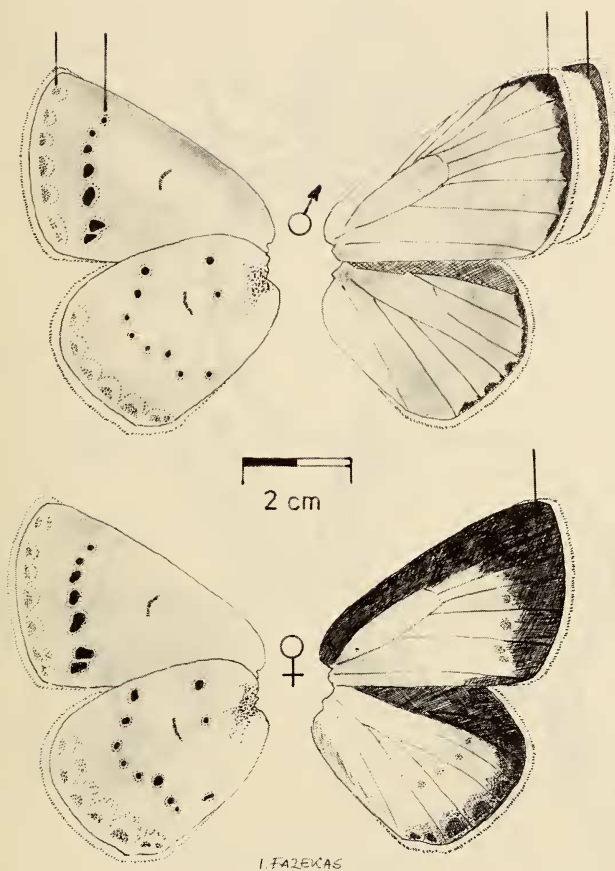


Fig. 1. Topotype specimens of *Iolana iolas iolas* OCHSENHEIMER.  
 ♂♂ "Budaörs, Csiki-hegyek, e.l. 19.5.1942. leg. LEVATICH" and «Budapest, Farkas-  
 völgy, 5.5.1934. leg. UHRİK" (part);  
 ♀ "Budapest, Farkas-völgy, 1909.VI e.l. leg. SZLABEY". All three preserved in the Zoo-  
 logical Department, Hungarian Natural History Museum collection, Budapest.

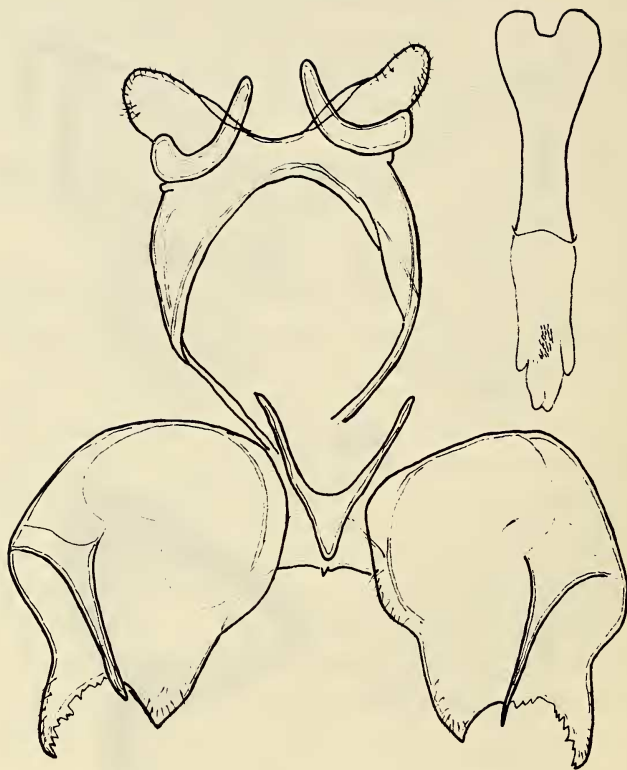


Fig. 2. Male genital organ of *Lolana iolas iolas* O. (topotype), "Budapest, Farkas-völgy, 5.5.1934, leg. UHRİK", slide No. 1649, FAZEKAS.

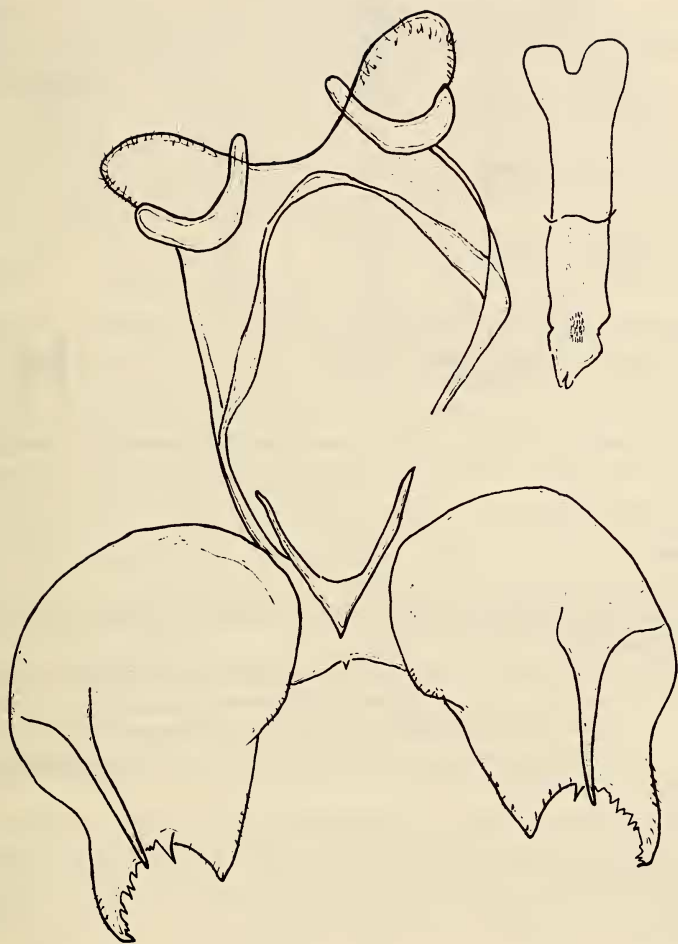


Fig. 3. Male genital organ of *Lolana iolas obscuriolas* BETTI syn. n. (topotype), "Pécs", 1936. VI.", slide No. 1652, FAZEKAS.

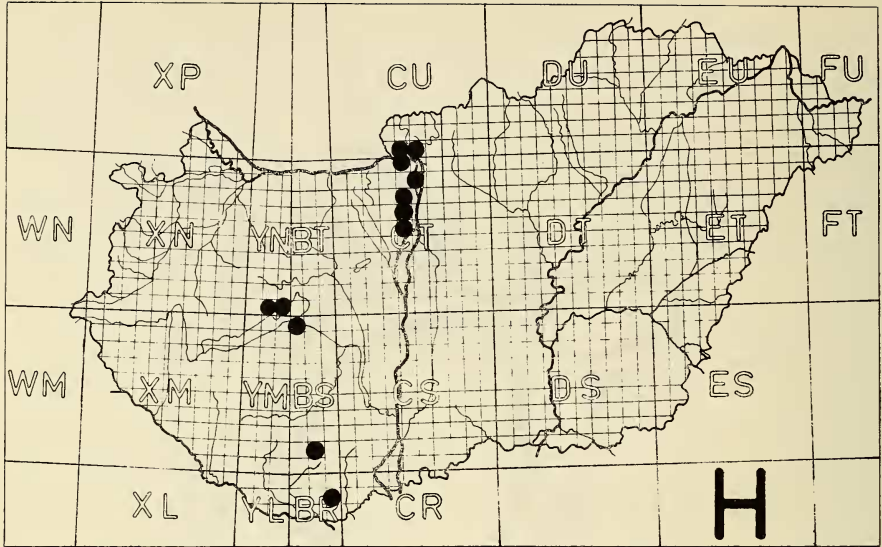


Fig. 4. Distribution map ; • = localities of *Iolana iolas iolas* O. in Hungary.

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